

fuse holder, with each of these designation pins designating a power rating attributed to a corresponding one of said electric fuse holders; and

a plurality of apertures in said panel, one for each of said designation pins, respectively aligned with said electric fuse holders.

REMARKS

Claims

35 U.S.C. 112

Claims 40-44 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctively claim the subject matter which applicant regards as the invention. Specifically, the examiner rejected claims 40 and 41 because the claims were unclear as to what applicant meant by "a like plurality of apertures in said housing" and "a like plurality of designation pins and a like plurality of apertures in said panel."

To clarify claim 40, it was amended to delete the word "like" in line 5. To clarify claim 41, it was amended to delete the word "like" in lines 4 and 7. Applicant believes there is sufficient disclosure in the original Modes of Carrying Out the Invention at page 11, lines 13-23, and Drawings at Fig. 1 for this clarification, and no new matter is added.

Claims 40 and 41 have been amended to overcome this rejection. Claim 42 depends from claim 41, claim 43 depends from claim 42, and claim 44 depends from claim 43, and accordingly, claims 42-44 also overcome this rejection.

35 U.S.C. 102(b)Hyams

The examiner rejected claim 51 under 35 U.S.C. 102(b) as being anticipated by Hyams (U.S. Patent No. 4,128,024). Specifically, the examiner found that Hyams et al. discloses a terminal base (10) having a plurality of terminals (figure 1) mounted thereon having a removable terminal cover (24) and keyhole slots (13,14, figure 3) for receiving the cover (figure 1). The examiner's comments and Hyams have been carefully analyzed and Applicant respectfully submits that the Hyams does not disclose, teach or suggest the limitations of claim 51.

Hyams is directed to a "fuse-mate" device (designated F-M) for a cartridge-type fuse that facilitates the fuse's insertion and removal from a fuse holder. The fuse-mate snaps onto a fuse and the fuse-mate can be used to conveniently insert and remove the fuse from the fuse panel's metal clips 13 and 14, even when the clips hold the fuse very tightly. A significant feature of the fuse-mate is that it acts as a shield to protectively cover its fuse and the underlying "live" terminal clips. Another advantage of the fuse-mate is that its handle lends itself to marking with the rating of the fuse held within it. The fuse-mate can be made of a synthetic material and can be mass-produced at low cost (See Hyams, Summary of Invention).

Claim 51 of invention includes limitations to an apparatus that is quite different from Hyams. Claim 51 is not directed to a fuse-mate, fuse holder or fuse cover, but is instead directed to "an electrical apparatus having distinct electrical terminals." Simply stated, claim 51 is directed to a terminal for connecting electrical wires, with the terminal arranged to accommodate a cover over the

terminals. Specifically, the terminal has a "standoff" with a "terminal cover" fastened to the top of the standoff. The top of the standoff has a "terminal cover fastener" and the terminal cover has a "keyhole slot" for the terminal cover fastener.

The fuse-mate of the Hyams patent does not disclose, teach or suggest the limitations of claim 51. It does not disclose, teach or suggest an electrical terminal for connecting electrical wires and it does not disclose teach or suggest a terminal apparatus with a standoff, terminal cover attached to the standoff, or a keyhole slot in the terminal cover.

It is noted in rejecting claim 51, the examiner did not address the standoff limitation and did not cite Hyams to a teaching or suggestion of this limitation. The examiner also relied on the fuse panel's metal clips 13 and 14 as a basis for rejecting the keyhole slot limitation in claim 51. Applicant submits that there is no relation between metal clips and a keyhole slot.

For anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. MPEP § 706.02. Hyams does not disclose, teach or suggest an electrical terminal, much less a terminal with a standoff and a terminal cover with a keyhole slot. Applicant submits that claim 52 is allowable and request reconsideration of the examiner's rejection.

35 U.S.C. 103(a)

Girke et al., J. P. Foley and Evans

Claim 32 was rejected under 35 U.S.C. 103(a) as being obvious when viewing Girke et al. (U.S. Patent No.

6,396,380), J.P. Foley (U.S. Patent No. 3,518,783), and Evans (U.S. Patent No. 4,284,296). The examiner found that it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include a designation card with the fuse box of Girke et al., as suggested by Foley, for the purpose of providing indication of the fuse type. The examiner also concluded that it would have been obvious to have the designation card of Girke et al. be flame resistant (Evans) for the purpose of protecting the card from the hot fuse box environment.

Girke essentially discloses a vehicle mounted fuse holder. Foley discloses a card that is rotatably connected at a corner to a telephone such that it is capable of fully sliding underneath the telephone. To view the contents of the card, it is rotated out about the connected corner, from under the telephone. Evans discloses a fire resistant card that can be held in a fire ceramic holder to protect the card from fire. None of the cited references disclose a housing having a slot, or a flame-resistant fuse designation card. Further, there would be no motivation to combine an automobile fuse box, and an index that slides under a telephone, and a identification card to get Applicant's invention as claimed in claim 32.

It is well settled that "it is impermissible to use the claimed invention to serve as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious." In re Fritch, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). "The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." In re Gordon, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984).

Applicant respectfully submits that claim 32 is not obvious over Girke in view of Foley, and Evans, because these references do not disclose, teach or suggest the claim limitations.

To further distinguish claim 32 from the references, it has been amended to include the limitation that the folded flame-resistant fuse rating designation card is partially inserted into said slot "from the outside of said housing, said card being fully removable from said slot and said card having lateral card stops to prevent the entirety of said card from being pushed into said housing." These limitations are important because the card must be fully removable to be unfolded so it can be read and updated. It is also important that the card have stops to prevent it from fully being inserted into the housing where it cannot be retrieved.

Support for these limitations can be found in the specification, claims and drawings as originally filed. The references do not disclose, teach or suggest these limitations and claim 32 is allowable.

Girke et al., and Flores

Claims 36-38 were rejected under 35 U.S.C. 103(a) as being obvious over Girke et al. in view of Flores (U.S. Patent No. 5,214,565). Claim 32 is allowable and claims 36-38 depend from claim 32 and are also allowable.

Addressing the examiner's specific findings, the examiner found that it would have been obvious to a person having ordinary skill at the time of the invention to include the heat sink member of Flores in Girke et al. for the purpose of dissipating unwanted heat.

As mentioned above, Girke et al. discloses a vehicle fuse holder. Flores discloses an individual heat sink that

fits over top of a fuse holder. The heat sink is provided by fins attached to the base and extending from one side of the main body to the other. When space is limited, the fins may have a rectangular U-shape with a base and two sides. The fins are integrally formed with the main body and are connected at the edge of one of the fin's sides opposite the base of the fins. When one or more fins are used, they are arranged adjacent to one another.

Flores and Girke do not disclose, teach or suggest a single heat sink including a frame around a plurality of fuse holders or in a ladder-like configuration as in Applicant's claim 36 and 37, respectively. Applicant respectfully submits that claim 36 and 37 are patentable over Girke and Flores, and request reconsideration of claim 36. Further, claims 37 and 38 depend from allowable claim 36 and are also allowable.

Girke et al., and Knapp Jr.

Claims 39 and 45-47 were rejected under 35 U.S.C. 103(a) as being obvious over Girke et al. in view of Knapp Jr. (U.S. Patent No. 3,824,520). These claims depend from allowable claim 32 and are also allowable.

The examiner found that it would have been obvious to a person having ordinary skill in the art at the time of the invention was made, to use the flagging device of Knapp, Jr. in Girke et al., for the purpose of allowing a user to easily ascertain the condition of a fuse. However, neither Girke nor Knapp disclose fuse holders mounted above a floor as in applicant's claim 39, 45 and 46. Girke discloses fuse holders for an automobile. Furthermore, Knapp does not disclose a pointing fuse condition-flagging device as in Applicant's claims 39 and 45-47. Instead, the fuse condition device in Knapp is a pin of electrically

insulating material having an indicating front end that extends when the fuse is blown. Knapp does not disclose, teach or suggest a fused condition-flagging device that points toward the floor in a blown condition or points from the floor when the fuse is intact. The indicating front end of the Knapp pin is either in or out, with no up or down pointing direction.

Applicant respectfully submits that claims 39, 45 and 46 are not obvious over Girke and Knapp, and respectfully requests reconsideration of these claims. Claim 47 depends from claim 46 and Applicant submits that it is also allowable.

Girke et al., and Panaro

Claims 40-41 were rejected under 35 U.S.C. 103(a) as being obvious over Girke et al. in view of Panaro (U.S. Patent No. 4,661,807). Claim 40 depends from allowable claim 32, and is also allowable.

The examiner concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use color coding with the fuse holders of Girke et al. as suggested by Panaro for the purpose of providing an indication of the necessary fuse type. Applicant submits that this is not what Panaro discloses.

The section of the Panaro disclosure relied upon by the examiner regarding the color-coding is as follows:

At the access panel 162 the inputs and outputs are identified as to which of the three fuse holders 142 they are associated with an appropriate numbering or color coded scheme. As shown in FIG. 10 a symbol system, as described above, may be used to identify the pin connection with which the connectors are

associated. (col. 7, lines 39-46).

Claims 40 and 41 do not include a limitation to color-coded scheme or a symbol system to identify pin connections. Instead, the claims have limitation to designating pins that designate the power rating attributable to each of the fuse holders, with the designating pins respectively aligned with the fuse holders. Girke and Panaro do not disclose, teach or suggest these limitations, and it is respectfully submitted that these claims are not obvious over these references and are allowable.

Girke et al., and Panaro

Claims 42-43 and 48-50 were rejected under 35 U.S.C. 103(a) as being obvious over Girke et al. in view of Panaro. Claims 42-43 depend from allowable claim 41 and are also allowable.

The examiner found that it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use color coding with the fuse holders of Girke et al., as modified, as suggested by Panaro for the purpose of providing indication of the necessary fuse type. However, claims 42-43 and 48-50 are directed to claim limitations for fuse holder heat sinks. The color-coded scheme and symbol system of Panaro appears unrelated to the heat sinking limitations of these claims and it theses references are not appropriate for rejecting the claims cited. It appears that these references were cited in error. These references certainly do not disclose, teach or suggest the heat sinking limitations of these claims.

These claims are allowable over Girke and Panaro. They are also allowable over the heat sinking disclosure of Flores (U.S. Patent No. 5,214,565), for the same reasons

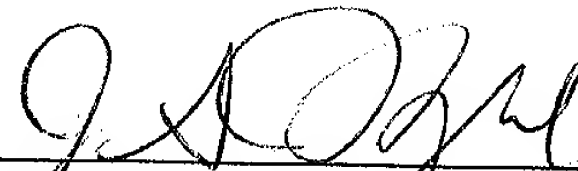
that claims 36-38 are allowable over Flores (as described above).

Allowable Subject Matter

Claims 33-35 were objected to as being dependent upon a rejected base claim, but were found allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 33 has been rewritten in rewritten in independent form as suggested by the examiner, and is now allowable. Claim 34 and 35 depend from claim 33, and are now also allowable.

All of the claims in the application are believed to be in proper form for allowance, and a Notice of Allowance is respectfully requested.

Respectfully submitted,



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February 24, 2003

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

32. (Amended) In an electrical apparatus, the improvement, comprising in combination:
a housing having a slot;
a plurality of electrical fuse holders mounted in said housing; and

a folded flame-resistant fuse rating designation card partially inserted into said slot from the outside of said housing, said card being fully removable from said slot and said card having lateral card stops to prevent the entirety of said card from being pushed into said housing.

33. (Amended) [An electric apparatus as in claim 32, wherein:] In an electric apparatus

the improvement, comprising in combination:

a housing having a slot;

a plurality of electric fuse holders mounted in said housing, and

a folded flame-resistant fuse rating designation card partially inserted in said slot;

wherein said flame-resistant fuse rating designation card comprises in combination:

a first fuse rating data-bearing section;

a second fuse rating data-bearing section;

a first folding crease between said first and second fuse rating data-bearing sections;

a shorter third section adjacent said second data bearing section; and

a second folding crease between said shorter third section and said second fuse rating data-bearing section.

40. (Amended) An electric apparatus as in claim 32, including:

a plurality of designation pins, one for each fuse holder, with each of these designation pins designating a power rating attributed to a corresponding one of said electric fuse holders; and

a [like] plurality of apertures in said housing, one for each of said designation pins, respectively aligned with said electric fuse holders.

41. (Amended) In an electric apparatus having a panel, the improvement comprising in combination:

a plurality of electric fuse holders mounted in said panel;

a [like] plurality of designation pins, one for each fuse holder, with each of these designation pins designating a power rating attributed to a corresponding one of said electric fuse holders; and

a [like] plurality of apertures in said panel, one for each of said designation pins, respectively aligned with said electric fuse holders.